

II.—Scarabæidæ in the British Museum.—A Sixth Contribution. By CHARLES O. WATERHOUSE.

*Ouitis inuus*, Fabr.

Fabricius described two species by the name *Scarabæus sphinx*, and to the earlier of these he afterwards gave the name *inuus*. Harold, in the Munich Catalogue, has retained the name *sphinx*, placing *inuus* as a synonym, and has been followed in this by M. Lansberge, in his "Monograph" (Ann. Soc. Ent. Belg. xviii. p. 89). The types (♂ ♀) of this earlier species are in the Banksian collection under the name *inuus*, and from the figures given by Olivier I feel sure that these specimens are those from which the drawings were made. The male is *not* the species described as *sphinx* by Lansberge, as there is no trace of the spine behind the anterior femora. It has the uniform bronzy-green colour of *O. shoënsis*, Reiche. The elytra are moderately strongly crenate-striate, with no crenulation within the marginal carina. The clypeal ridge is very short and is a trifle nearer to the frontal ridge than to the anterior margin; the clypeus itself is rather finely punctured, and is not granular as in many allied species. The thorax is strongly punctured, but has a smooth median line. The anterior femora have a small tooth (emarginate at its apex) below on the anterior margin beyond the middle. The anterior tibiæ are quadridentate, and have five tubercles below. The intermediate femora are unarmed. The posterior femora have a strong, triangular, acute-pointed tooth beyond the middle. The metasternum is nearly smooth and is not channelled.

The only specimen in the Museum collection which agrees well with the type is one from Lake Nyassa; this differs from the type only in having some slight crenulations within the lateral carina of the elytra near the apex; but this is much less on one side than on the other, and no doubt is a variable character.

The type female of *O. inuus* is quite a different species, and, as will be seen from Olivier's figure, is pubescent below. This I have determined from Lansberge's Monograph to be *O. confusus*, Bohem., ♀.

*Onthophagus crassus*, Sharp.

Dr. Sharp describes this species from Laos and Cambodia, and throws doubt on the habitat "Java" borne by the Dejeanian example. The British Museum Collection has two specimens of this species from Java.

*Onthophagus quadripustulatus*, Fabr.

The Fabrician type of this species is in the Banksian collection in the British Museum; it is 4 millim. long, very shining black, with four red spots on the elytra; the head has two slight oblique tubercles on the vertex and a fine transverse scarcely raised frontal line, the space between these very delicately and obscurely punctured; the thorax is very convex, very finely punctured, the punctures separated from each other by about three diameters of a puncture; the elytra are very distinctly punctured, the punctures in the striæ rather large and separated from each other by about a diameter and a half.

A specimen of this species has just been received from North-west Australia, collected by Mr. J. J. Walker. A female example, also from North-west Australia, differs from the male in having the thorax a trifle more distinctly punctured; the tubercles on the vertex of the head are less raised and are transverse; the frontal line is more raised, and there is a very slight tubercle behind this.

*O. rubrimaculatus*, M'L., is a much larger insect, "2½ lines long," from East Australia, and, if the Museum specimens are correctly named, has rather dull elytra.

Another species closely resembling the true *O. quadripustulatus* occurs at Port Bowen. It is not quite so short as that species, the thorax is not quite so broad and has the punctures more separated, the space between the ridges on the head is distinctly punctured, and the sides of the thorax are beset with short hairs. I propose to call this

*Onthophagus Fabricii*, sp. n.

Niger, nitidissimus; capite cupreo-aneo tineto, clypeo leviter emarginato crebre sat rugoso-punctato, carina antica recta, postica retrorsum angulata; thorace subtiliter minus crebre punctulato, marginibus parce setosis; elytris distincte striatis, striis evidenter punctatis, interstitiis leviter convexis lævibus, macula humerali, marginibus, maculaque apicali rufis, femoribus piceo-rufis.

*Hab.* East Australia, Port Bowen.

*Onthophagus declivis*, Harold.

*Onthophagus declivis*, Harold, Col. Hefte, v. p. 85.

This species was described by Harold in 1869. In 1871 Mr. M'Leay described *O. desectus* (Tr. Ent. Soc. N. S. W. ii. p. 182). In 1872 Harold (Col. Hefte, x. p. 210) refers *O. desectus* to *O. declivis*, but gives no reason for this deter-

mination; and I think this synonymy must be received with caution. Harold describes *declivis* as having dull elytra; M'Leay describes *desectus* as "nitid," the elytra as smooth, and I think it very possible that his species may be distinct from *O. declivis*; at any rate, there are in the Museum collection two closely allied species which differ in one having dull and the other shining elytra, as well as in the sculpture of the thorax, &c.

*Onthophagus rupicapra*, sp. n.

Ater, opacus, convexus: thorace granulis nitidis crebre sparsis; elytris striatis, striis bene impressis subtilissime discrete punctulatis, interstitiis convexis, subtiliter parce punctulatis, punctis setigeris; pygidio parce obsolete punctulato.

♂. Capite nitido, granuloso, clypeo medio triangulariter inciso, sub-bidentato, utrinque obtuse angulato; vertice cornibus duobus sat gracilibus (ad basin non conjunctis) acuminatis, vix divaricatis, ad apicem retrorsum curvatis; thorace antice declivi, flavo-testaceo-piloso, parte elevata medio longitudinaliter leviter sulcata, antice tuberculis duobus parvis obtusis instructa.

Long. 9 lin.

*Hab.* Swan River.

I place this species near *O. adelaidæ*, Hope. It is a somewhat singular species on account of the rather long slender horns, which are curved backwards over the thorax. The thorax has its basal part much raised, and the front declivous part is clothed with rather long soft pubescence. The minute shining granules are rather close together in the front part, but almost disappear on each side of the base.

*Onthophagus Duboulayi*, sp. n.

Obscure purpureo-cupreus, sat opacus; clypeo medio triangulariter inciso, sub-bidentato, utrinque obtuse angulato; thorace sat crebre sat fortiter punctato; elytris nitido-striatis, striis discrete subtiliter punctatis, interstitiis parum convexis parce subtiliter punctatis.

♂. Capite nitido, antice crebre subtiliter punctulato, postice sub-lævi, vertice cornibus duobus erectis (ad basin non conjunctis) linearibus, sat distantibus, paullo divaricatis, ad apicem paullo introrsum curvatis; thorace postice bene convexo, medio leviter obtuse sulcato, antice declivi subnitido, subtiliter punctulato, utrinque lævissime late impresso.

Long. 3¼ lin.

*Hab.* West Australia (*Du Boulay*).

Allied to *O. adelaidæ*. The horns on the head are of nearly equal thickness throughout and blunt at the apex;

they are widely separated at their base. The punctures in the striæ of the elytra are small and widely separated from each other.

*Onthophagus nanus*, sp. n.

Oblongo-ovatus, sat depressus, niger, opacus, subtus purpureo tinctus nitidus; capite crebre punctato, clypeo sat late triangulariter emarginato; thorace confertim sat fortiter punctato, æquali, subnitido; elytris evidentem striatis, striis nitidis parce subtiliter punctulatis, interstitiis suturalibus parum convexis obsolete subtilissime punctulatis, lateralibus nitidis punctatis; tarsis piceis.

♂. Capite nitido, cuprescenti, vertice carina bene elevata apice arcuatim emarginata, clypeo subtiliter punctulato.

♀. Capite minus nitido, vertice carina parum elevata retrorsum angulata, clypeo carina fore recta, clypeo creberrime sat fortiter punctato.

Long.  $2\frac{1}{4}$ – $2\frac{1}{2}$  lin.

*Hab.* East Australia, Sydney.

Somewhat the appearance of the European *O. ovatus*, but with the thorax much more closely and rather more strongly punctured; rather more convex, with scarcely any trace of longitudinal impression. The elytra are dull; the first and second interstices are nearly flat, with a few indistinct punctures; the third has a slightly raised central line, which is punctured, and each of the following interstices has this line more distinct, more shining, and more punctured, until the lateral interstice is entirely shining, convex, and closely and rather strongly punctured.

The male has the clypeus rather closely and delicately punctured, the forehead still more delicately punctured, the ocular canthus more strongly punctured.

The female has two raised transverse lines, the one on the vertex angulated; the punctuation is much stronger than in the male and more uniform.

A single specimen, which is probably an undeveloped male, has the punctuation of the head as in the female; the carina on the vertex is also like that of the female, but there is no anterior raised line.

III.—*Two new Coccidæ from the Arid Region of North America.* By T. D. A. COCKERELL, Entomologist to the New Mexico (U. S. A.) Agricultural Experiment Station.

THE arid region of Western North America has not been well explored for Coccidæ, but it is already known to support